

**Amendments to the Claims:**

This listing of claims will replace all versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Canceled)
2. (Previously Presented) An isolated or purified nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:
  - a) the nucleotide sequence encoding amino acids 1 to 1157 of SEQ ID NO:2;
  - b) a nucleotide sequence encoding the amino acid sequence encoded by the DNA plasmid encoding feedback resistant pyruvate carboxylase enzyme, said plasmid contained in Deposit Number NRRL B-30293; and
  - c) a nucleotide sequence completely complementary to any of the nucleotide sequences (a) or (b).
3. (Original) The nucleic acid molecule of claim 2, comprising the nucleotide sequence of SEQ ID NO:1.
4. (Canceled).
5. (Currently Amended) A vector comprising:
  - a) the nucleic acid molecule of claim 1 or 2; and
  - b) at least one marker gene.
6. (Original) The vector of claim 5, further comprising a functional *Corynebacterium* replication origin.
7. (Original) A method for producing a host cell comprising introducing the vector of claim 5 into a host cell.
8. (Original) A host cell comprising the vector of claim 5.
9. (Withdrawn) A method of producing an amino acid, comprising:
  - a) culturing the host cell of claim 8, in a suitable media; and
  - b) separating said amino acid from said medium.

10. (Withdrawn) The method of claim 9, wherein said amino acid is selected from the group consisting of: L-lysine, L-threonine, L-methionine, L-isoleucine, L-glutamic acid, L-arginine and L-proline.

11. (Withdrawn) The method of claim 10, wherein said amino acid is L-lysine.

12. (Original) A method for replacement of a wild-type pyruvate carboxylase gene, with a feedback resistant pyruvate carboxylase gene, in a *Corynebacterium glutamicum* host cell comprising the steps of:

a) replacing a genomic copy of said wild-type pyruvate carboxylase gene with a selectable marker gene through homologous recombination to form a first recombinant strain; and

b) replacing said selectable marker gene of step (a) in said first recombinant strain, with said feedback resistant pyruvate carboxylase gene through homologous recombination to form a second recombinant strain;

wherein said homologous recombination in steps (a) and (b) occurs between said host cell and the vector of claim 5.

13. (Original) A host cell produced by the method of claim 12.

14. (Withdrawn) A method of producing an amino acid, comprising:

a) culturing the host cell of claim 13 in a suitable medium; and

b) separating said amino acid from said medium.

15. (Withdrawn) The method of claim 14, wherein said amino acid is selected from the group consisting of: L-lysine, L-threonine, L-methionine, L-isoleucine, L-glutamic acid, L-arginine and L-proline.

16. (Withdrawn) The method of claim 15, wherein said amino acid is L-lysine.

17. (Withdrawn) An isolated or purified polypeptide comprising the amino acid sequence of the polypeptide encoded by the DNA plasmid encoding pyruvate carboxylase contained in Deposit Number NRRL B-11474, the amino acid sequence of SEQ ID NO:2 or the amino acid sequence of SEQ ID NO:4.

18. (Withdrawn) An isolated or purified polypeptide comprising an amino acid sequence selected from the group consisting of: SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16 and SEQ ID NO:18.

19-23 (Canceled)

24. (Currently Amended) An isolated or purified nucleic acid molecule comprising a nucleic acid sequence encoding a pyruvate carboxylase enzyme desensitized to feedback inhibition by aspartic acid, said enzyme having an amino acid sequence that differs from SEQ ID NO: 19 by at ~~least one mutation~~, at least one but no more than six mutations, said at least one, but no more than six mutations ~~mutation~~ selected from the group consisting of:

- a) ~~methionine at position 1 is replaced with a valine,~~
- b) a) glutamic acid at position 153 is replaced with an aspartic acid,
- c) b) alanine at position 182 is replaced with a serine,
- d) c) alanine at position 206 is replaced with a serine,
- e) d) histidine at position 227 is replaced with an arginine,
- f) e) alanine at position ~~452~~ 455 is replaced with a glycine, and
- g) f) aspartic acid at position 1120 is replaced with a glutamic acid.

25. (Currently Amended) An isolated or purified nucleic acid molecule comprising a nucleotide sequence at least 95% identical to SEQ ID NO:1 and which codes for a pyruvate carboxylase enzyme desensitized to feedback inhibition by aspartic acid, wherein said pyruvate carboxylase enzyme contains at least ~~seven~~ six mutations to SEQ ID NO:19, wherein said at least ~~seven~~ six mutations to SEQ ID NO:19 include:

- a) ~~methionine at position 1 is replaced with a valine,~~

- b) a) glutamic acid at position 153 is replaced with an aspartic acid,
- e) b) alanine at position 182 is replaced with a serine,
- d) c) alanine at position 206 is replaced with a serine,
- e) d) histidine at position 227 is replaced with an arginine,
- f) e) alanine at position ~~452~~ 455 is replaced with a glycine, and
- g) f) aspartic acid at position 1120 is replaced with a glutamic acid.

26. (Previously Presented) A vector comprising:

- (a) the nucleic acid molecule of claim 24 or 25; and
- (b) at least one marker gene.

27. (Previously Presented) The vector of claim 26, further comprising a functional *Corynebacterium* replication origin.

28. (Currently Amended) A method for producing a host cell comprising introducing the vector of claim 26 into a host cell.

29. (Previously Presented) A host cell comprising the vector of claim 26.

30. (Previously Presented) A method for replacement of a wild-type pyruvate carboxylase gene, with a feedback resistant pyruvate carboxylase gene, in a *Corynebacterium glutamicum* host cell comprising the steps of:

- (a) replacing a genomic copy of said wild-type pyruvate carboxylase gene with a selectable marker gene through homologous recombination to form a first recombinant strain; and

- (b) replacing said selectable marker gene of step (a) in said first recombinant strain, with said feedback resistant pyruvate carboxylase gene through homologous recombination to form a second recombinant strain;

wherein said homologous recombination in steps (a) and (b) occurs between said host cell and the vector of claim 26.

31. (Previously Presented) A host cell produced by the method of claim 30.